CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.06/TBMK/WBM-II/2014-15

Date: 08.09.2014

REPORT

Client	:	**Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
Agency	:	**Mr. T.B. Mahesh Kumar**, Contractor, Bangalore.
Name of the Work	:	Improvements to Road and Drains at Cauvery Layout in Ward No.06, BBMP, Bangalore.
Reference	:	AEE/BTP/WO/63/2014-15 Dated: 26.08.2014
Type of Mix	:	Water Bound Macadam (Grade-II Metal)
Date of Sampling	:	06.09.2014
Date of Testing	:	08.09.2014

1) SEIVE ANALYSIS :

IS Sieve designation Size, mm	Percentage Passing for Graded Aggregate of Nominal size	Percentage by Weight Passing as per MORTH table 400-7
90mm	100.00	100.00
63mm	96.25	90-100
53mm	31.40	25-75
45mm	9.65	0-15
22.4mm	2.10	0-5

Civil Tech Consultants & Engineers Bangalore

Note:

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CIVIL-TECH CONSULTANTS AND ENGINEERS

Building & Highway Material Testing Laboratory

NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.06/TBMK/WBM-III/2014-15

Date: 12.09.2014

REPORT

Client	:	**Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
Agency	:	**Mr. T.B. Mahesh Kumar**, Contractor, Bangalore.
Name of the Work	:	Improvements to Road and Drains at Cauvery Layout in Ward No.06, BBMP, Bangalore.
Reference	:	AEE/BTP/WO/63/2014-15 Dated: 26.08.2014
Type of Mix	:	Water Bound Macadam (Grade-III Metal)
Date of Sampling	:	10.09.2014
Date of Testing	:	12.09.2014

1) SEIVE ANALYSIS:

IS Sieve design ation Size,mm	Percentage Passing for Graded Aggregate of Nominal size	Percentage by Weight Passing as per MORTH table 400-7
63mm	100.00	100.00
53mm	97.80	95-100
45mm	64.65	65-90
22.4mm	6.40	0-10
11.2mm	2.25	0-5

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NABL - Accredited Laboratory as per ISO / IEC-17025 : 2005

Job No.: CTCE/BBMP/W.No.06/TBMK/CUBE/2014-15

25.09.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
Agency	: **Mr. T.B. Mahesh Kumar,** Contractor, Bangalore.
Name of the work	: Improvements to Road and Drains at Cauvery Layout in Ward No.06, BBMP, Bangalore.
Reference	: AEE/BTP/WO/63/2014-15 Dated: 26.08.2014
Sample ID	: Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{20}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	28.08.2014	25.09.2014	8.157	491.5	21.84
2	28.08.2014	25.09.2014	8.263	507.2	22.54
3	28.08.2014	25.09.2014	8.395	523.7	23.28

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JAS-ANZ BSCIC ISO 9001 REGISTERED

Job No.: CTCE/BBMP/W.No.06/TBMK/CEMENT/2014-15

Date: 01.08.2014

TEST REPORT

CLIENT	:	**Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
AGENCY	:	**Mr. T.B. Mahesh Kumar**, Contractor, Bangalore.
NAME OF THE WORK	:	Improvements to Road and Drains at Cauvery Layout in Ward No.06, BBMP, Bangalore.
REFERENCE	:	AEE/BTP/WO/63/2014-15 Dated: 26.08.2014
SAMPLE ID	:	Cement
SAMPLES SUPPLIED BY	:	AGENCY

The results of the tests conducted on the cement sample are as follows:

Sl.No	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 8112-1989
1	a) Initial Setting Time	IS-4031 (Part -5)	135 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part -5)	480 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part 3) by the Le-Chatelier method	1 mm	Not more than 10 mm
3	Standard Consistency	IS-4031 (Part -4)	27.00 %	-

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Job No.: CTCE/BBMP/W.No.06/TBMK/SAND/2014-15 : 01.08.2014

TEST REPORT ON FINE AGGREGATES (SAND)
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.

Agency : **Mr. T.B. Mahesh Kumar,** Contractor, Bangalore.

Name of Work : Improvements to Road and Drains at Cauvery Layout in Ward No.06, BBMP, Bangalore.

Reference : AEE/BTP/WO/63/2014-15 Dated: 26.08.2014

Date of Testing : 01.08.2014

Material : Sand Total Wt. of Aggregates in gms **2000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits For Zone-II
10	0	0	0	100	100
4.75	117	5.85	5.85	94.2	90-100
2.36	213	10.65	16.50	83.5	75-100
1.18	508	25.40	41.90	58.1	55-90
600 Micron	412	20.60	62.50	37.5	35-59
300 Micron	486	24.30	86.80	13.2	8-30
150 Micron	203	10.15	96.95	3.1	0-10

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Job No.: CTCE/BBMP/W.No.06/TBMK/AGG/2014-15 : 01.08.2014

TEST REPORT ON COARSE AGGREGATES
IS 383-1970 (RA- 2002)

Client : **Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.

Agency : **Mr. T.B. Mahesh Kumar,** Contractor, Bangalore.

Name of Work : Improvements to Road and Drains at Cauvery Layout in Ward No.06, BBMP, Bangalore.

Reference : AEE/BTP/WO/63/2014-15 Dated: 26.08.2014

Date of Testing : 01.08.2014

Material : 40mm Aggregates

Total Wt. of Aggregates in gms **26000**

Is Sieve Size in mm	Weight Retained (gm)	Retained Weight in %	Cumulative Retained Weight in %	Cumulative Weight Passing in %	Spec.Limits
80	0	0	0	100	100
40	1025	3.94	3.94	96.06	95-100
20	15865	61.02	64.96	35.04	30-70
10	6230	23.96	88.92	11.08	10-35
4.75	2580	9.92	98.85	1.15	0-5

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Job No.: CTCE/BBMP/W.No.06/TBMK/STEEL/2014-15 01.08.2014

TEST REPORT ON REINFORCEMENT STEEL

Client	:	**Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
Agency	:	**Mr. T.B. Mahesh Kumar**, Contractor, Bangalore.
Name of the work	:	Improvements to Road and Drains at Cauvery Layout in Ward No.06, BBMP, Bangalore.
Reference	:	AEE/BTP/WO/63/2014-15 Dated: 26.08.2014
Date of Test	:	01.08.2014
Technical Reference	:	IS: 1786-2008

Sl. No	Nominal size (dia) (mm)	Mass per metre (Kg/mtr)	TENSILE STRENGTH			Bend Test	Rebend Test
			0.20% proof stress/Yield stress N/mm²	Tensile strength (Ultimate stress) N/mm²	Elongation percent gauge length		
1	10	0.62	514	552	13.20	O.K	O.K

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Job No.: CTCE/BBMP/W.No.06/TBMK/CUBE/2014-15

02.09.2014

TEST REPORT ON CONCRETE CUBES

Client	: **Asst. Executive Engineer,** Byatarayanapura Sub Division, BBMP, Bangalore.
Agency	: **Mr. T.B. Mahesh Kumar,** Contractor, Bangalore.
Name of the work	: Improvements to Road and Drains at Cauvery Layout in Ward No.06, BBMP, Bangalore.
Reference	: AEE/BTP/WO/63/2014-15 Dated: 26.08.2014
Sample ID	: Drain Concrete
Size of cubes	: 150mmx150mmx150mm
Cross Sectional Area	: 22500 mm^2
Technical Reference	: IS: 516-1959 (Reaffirmed 2008)
Grade of Concrete	: M_{15}
Compressive Strength as on	: 28^{th} day

Sl.No.	Date of casting	Date of testing	Weight of cube (Kg)	Failure load (KN)	Compressive strength (N/mm^2)
1	05.08.2014	02.09.2014	8.137	362.8	16.12
2	05.08.2014	02.09.2014	8.219	394.1	17.52
3	05.08.2014	02.09.2014	8.362	379.6	16.87

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